VENABLE LLP

600 MASSACHUSETTS AVE., NW WASHINGTON, DC 20001
T 202.344.4000 F 202.344.8300 www.Venable.com

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Ian D. Volner

T 202.344.4814
F 202.344.8300
IDVolner@Venable.com

Via ECF Filing

Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, SW
Washington, DC 20554

Re: Notice of *Ex Parte* Presentation by Polaris Wireless, Wireless E911 Location Accuracy Requirements PS Docket No. 07-114

Dear Secretary Dortch:

Pursuant to Section 1.1206 of the Federal Communication Commission's ("FCC") rules, the undersigned counsel hereby provides notice that, on September 16, 2019, Polaris Wireless Inc.'s Executive Director of Business Development, Karl Kessenich, and Vice President of Research, Scot Gordon, along with Venable LLP attorneys Ian Volner and Meryl Nolan (collectively "Polaris Wireless") met with David Furth, Eric Burger, Alex Espinoza, Rasoul Safavian, John Evanoff, Nellie Foosaner, and Erika Olsen in the Public Safety and Homeland Security Bureau. The basic message that Polaris Wireless delivered was that there is a critical need for the Commission to adopt the 3-meter z-axis metric as promptly as possible and to preserve flexibility and the existing implementation timelines to the extent practical. Polaris Wireless stressed that there is a consensus on these issues.[1]

During the meeting, Polaris Wireless reiterated current capabilities of its software-based solution that delivers affordable and scalable 3-meter z-axis accuracy. Polaris Wireless technology is available today as an over-the-top offering for First Responders and other commercial applications. As a location technology innovator, Polaris Wireless continues to enhance its existing indoor and vertical location performance, explore other location techniques, and collaborate with other stakeholders to deliver high accuracy 3D location solutions to public safety.

Polaris Wireless explained the range of solutions available to implement z-axis technology. While Polaris Wireless's software-based location technology is currently available, there is still work to

[1] Notice of Ex Parte Presentation from the International Association of Fire Fighters, PS Docket No. 07-114 (Sept. 13, 2019).

be done specifically related to how the carriers choose to deploy solutions. There are two primary methods of implementing the barometric-based solution, neither of which require hardware changes. One method is to implement adopted 3GPP and OMA standards for barometric compensation. This firmware-based approach is achievable through cooperation among carriers, device manufacturers, and chipmakers. An alternative method is to place necessary functionality on devices. This software-based approach is achievable through cooperation among carriers, location vendors, and device Operating System providers. Polaris Wireless can support a variety of implementation methodologies and remains committed to work with carriers and other involved parties to implement any agreed upon methodology.

Polaris Wireless also acknowledged that the market has heard public safety's pursuit of Dispatchable Location (DL). Based on results of the NEAD and the lack of any other DL-related capability in the record, this objective is still a work in progress. Polaris Wireless offered that there are potential methods to determine floor level information that start with accurate z-axis measurements. The Commission should therefore act on a z-axis requirement now without complicating the ruling with language related to DL.

Further, Polaris Wireless emphasized that, as evident the extensive record that the Commission has developed over the years, a 3-meter z-axis metric is desired, supported, and achievable within the current timelines, and is the essential next step for serving public safety. 3-meter accuracy exists in the current market from at least two vendors, and there could be more market participants that have not yet engaged. Testing needs to shift from simply exploring technologies to determine what metric is achievable to testing implementation of technologies capable of meeting an established metric. Development and testing of additional vendors and additional technologies can and will continue in parallel as devices, networks, and reference databases evolve. Nevertheless, an established metric will provide focus for testing towards actually delivering a solution to Public Safety. Any further delay in establishing a benchmark for z-axis location accuracy will undermine the public safety objectives of the Commission and delay the rollout of solutions that will save American lives.

Polaris Wireless stressed that the need for the establishment of the 3-meter z-axis metric is acute. Over 250 million 911 calls are made annually, and over 75% of those calls are placed by wireless devices. Although the Commission has adopted rules implementing Kari's Law and RAY BAUM'S Act, the basic objectives of those rules cannot be fully achieved until the z-axis metric is adopted so that affected parties, including enterprise MLTS operators, know what is expected of them. Each day that passes without the ability to accurately locate 911 callers costs lives. The International Association of Fire Fighters' ("IAFF") comments noted that search and rescue drills performed by IAFF members in San Francisco in 2014 showed that the availability of vertical location information reduced search times in large buildings from as little as several minutes to

more than 15 minutes.[2] In these emergency-response situations, minutes cost lives. A study examining 73,706 emergency incidents during 2001 in the Salt Lake City area found that on average, a one-minute decrease in ambulance response times reduced the likelihood of 90-day mortality from 6 percent to 5 percent, i.e., a 17 percent reduction in the total number of deaths.[3] As the Commission has estimated, these numbers suggest that location accuracy improvements could save approximately 10,120 lives annually.[4]

For the reasons discussed in its Reply Comments and above, Polaris Wireless respectfully requests that the Commission move quickly to adopt a wireless vertical location requirement of +/- 3 meters for 80% of wireless calls from z-axis capable handsets.

Respectfully submitted,

Ian D. Volner

Counsel to Polaris Wireless, Inc.

cc: David Furth
Eric Burger
Alex Espinoza
Rasoul Safavian
John Evanoff
Nellie Foosaner
Erika Olsen

[2] Comments of the International Association of Fire Fighters, PS Docket No. 07-114, at 2-3 (May 20, 2019).
[3] Wilde, E.T., "Do Emergency Medical System Response Times Matter for Health Outcomes?" 22 Health Econ. 7, pp. 790-806 (2013), available at http://www.ncbi.nlm.nih.gov/pubmed/22700368.
[4] Wireless E911 Location Accuracy Requirements, PS Docket No. 07-114, *Third Further Notice of Proposed Rulemaking*, FCC 14-13, (Feb. 21, 2014), ¶ 33, n.70.